What is claimed:

1. A substrate for a semiconductor light-emitting element comprises, on a set base material, a group III nitride underlayer which contains at least Al, said group III nitride underlayer having a dislocation density of $\leq 1 \times 10^{11}/cm^2$ and a (002) plane X-ray rocking curve half-width value of ≤200 seconds, a p-type semiconductor layer group is formed above said group III nitride underlayer and comprises a group III nitride having a Ga content relative to the total group III elements of ≥50% and a carrier density of $\geq 1 \times 10^{16}/cm^3$, a light-emitting layer is formed on said p-type semiconductor layer and has the form of insular crystals comprising a group III nitride and produces quantum effects, and an n-type semiconductor layer group is formed on said light-emitting layer and has a Ga content relative to the total group III elements of ≥50%.

2. The substrate for a semiconductor light-emitting element as claimed in Claim 1, wherein the Al content in said group III nitride underlayer relative to the total group III elements present in said group III nitride underlayer is ≥50%.

3. The substrate for a semiconductor light-emitting element as claimed in Claim 2, wherein said group III nitride underlayer comprises AlN.

4. The substrate for a semiconductor light-emitting element as claimed in claim 1, wherein said group III nitride underlayer is formed by a CVD procedure at a temperature of ≥1100°C.

5. The substrate for a semiconductor light-emitting element as claimed in claim 1, wherein said light-emitting layer having said insular crystals includes rare earth metal or transition metal atoms.

6. The substrate for a semiconductor light-emitting element as claimed in claim 1, wherein said light-emitting layer having said insular crystals consists of plural layers.

7. The substrate for a semiconductor light-emitting element as claimed in claim 1, wherein said carrier density of said p-type semiconductor layer group is $\geq 1 \times 10^{17}/cm^3$.

8. A semiconductor light-emitting element comprises, on a set base material, a group III nitride underlayer formed on said base material including at least Al, a dislocation density of $\leq 1 \times 10^{11}/cm^2$ and a (002) plane X-ray rocking curve half-width value of ≤200 seconds, a p-type semiconductor layer group is formed above said group III nitride underlayer and comprises a group III nitride having a Ga content relative to the total group III elements of ≥50% and a carrier density of $\geq 1 \times 10^{16}/cm^3$, a light-emitting layer is formed on said p-type semiconductor layer and has the form of insular crystals comprising a group III nitride and produces quantum effects, and an n-type semiconductor layer group is formed on said light-emitting layer and has a Ga content relative to the total group III elements of ≥50%.

9. The semiconductor light-emitting element as claimed in Claim 8, wherein the Al content in said group III nitride underlayer relative to the total group III elements present in said group III nitride underlayer is $\geq 50\%$.

10. The semiconductor light-emitting element as claimed in Claim 9, wherein said group III nitride underlayer comprises AlN.

11. The semiconductor light-emitting element as claimed in claim 8, wherein said light-emitting layer having said insular crystals includes rare earth metal or transition metal atoms.

12. The semiconductor light-emitting element as claimed in claim 8, wherein said light-emitting layer having said insular crystals consists of plural layers.

13. The semiconductor light-emitting element as claimed in claim 8, wherein said carrier density of said p-type semiconductor layer group is $\geq 1 \times 10^{17}/cm^3$.

14. A semiconductor light-emitting element fabrication method comprises the steps of:

forming a group III nitride underlayer on a set base material, said group III nitride underlayer contains at least Al, has a dislocation density of $\leq 1 \times 10^{11}/cm^2$ and a (002) plane X-ray rocking curve half-width value of ≤ 200 seconds;

forming a p-type semiconductor layer group above said group III nitride underlayer, said p-type semiconductor layer group comprising a group III nitride

having a Ga content relative to the total group III elements present in the p-type semiconductor layer group of ≥50%;

forming a light-emitting layer on said p-type semiconductor layer group, said light-emitting layer having the form of insular crystals comprising a group III nitride and produces quantum effects; and

forming an n-type semiconductor layer group on said light-emitting layer, said n-type semiconductor layer group including a Ga content relative to the total group III elements present in the n-type semiconductor layer group of ≥50%.

15. The semiconductor light-emitting element fabrication method as claimed in Claim 14, wherein said group III nitride underlayer is formed by a MOCVD procedure at a temperature of ≥1100°C.

16. The semiconductor light-emitting element fabrication method as claimed in Claim 14, wherein said light-emitting layer is formed by supplying an In source material beforehand, and then effecting simultaneous supply of other group III source materials and group V source materials.

17. The semiconductor light-emitting element fabrication method as claimed in claim 14, wherein said light-emitting layer having said insular crystals and said n-type semiconductor layer group are formed by means of a MBE procedure.